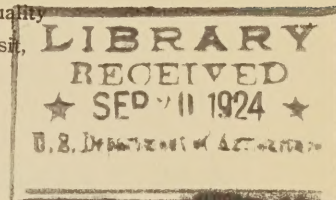


Ex 892 Ep

# THE EXTENSION PATHOLOGIST

"To promote economic crop production, improve the quality of the products, and prevent wastage in storage, transit, and at the market."



Issued by

THE OFFICE OF COOPERATIVE EXTENSION WORK

AND

BUREAU OF PLANT INDUSTRY

COOPERATING

UNITED STATES DEPARTMENT OF AGRICULTURE

---

VOLUME 2.

NUMBERS 7 AND 8.

JULY AND AUGUST, 1924.

The material contained herein is not for publication except by permission from the Office of Cooperative Extension Work, United States Department of Agriculture, Washington, D. C.



THE EXTENSION PATHOLOGIST

Volume 2.

Numbers 7 and 8.

Contents of this issue.

	Page
Section 1.- Management of tours - their value in extension work in plant pathology.....	62
Some things to think about when planning the automobile tour	62
The farmers' tour in New York State.....	64
Comments on the tour.....	65
The potato tour as conducted in Kansas.....	66
The tour in South Carolina.....	67
The tour in Indiana.....	67
Teaching plant pathology by means of the automobile tour....	68
Section 2.- Reports on tours held recently.....	70
The Blair County, Pa., tour.....	70
The Minnesota potato tour.....	74
Potato tour, Worcester County, Md. ....	77
The third Kaw Valley potato tour.....	79
Extension literature.....	81



OUR SUBJECT FOR THIS NUMBER - THE FARMERS' TOUR.

Some time ago announcement was made of the fact that this number would be devoted to a discussion of the farmers' tour. As a result, a number of interesting papers dealing with this subject have been received. These have been divided into two sections. In the first, we hear from A. B. Graham, M. F. Barrus, W. G. Stover, E. A. Stokdyk, W. D. Moore, C. T. Gregory, and W. S. Krout on general matters related to methods of conducting tours. The second section contains accounts of field trips which have been held this year.- F.C.M.

SECTION 1.

MANAGEMENT OF TOURS - THEIR VALUE IN EXTENSION WORK  
IN PLANT PATHOLOGY.

Some Things to Think About when Planning the Automobile Tour.

By A. B. Graham, In Charge, Division of Subject-Matter  
Specialists, Office of Cooperative Extension Work,  
Washington, D.C.

An automobile tour for sight-seeing and pleasure is not an automobile tour for learning about practices in agriculture or home economics.

Numbers may be a limiting factor. A hundred automobiles will make a mighty procession, but 20 will carry a crowd quite large enough to make careful observations. Even a group of 100 persons is a little difficult to handle in the examination of a field, orchard, or garden, a barn or poultry house. It is a crowd that is entirely too large for educational trips where homes are to be visited, for seldom does one find in the average home, a room that will comfortably accommodate 25 or 30 people.

A banner or marker of some kind, placed in the same position on each car, helps to identify the tour with some purpose. It is a good advertisement also. It says, "Think about it." It starts talk; arouses interest. It extends the idea. It may produce action.

A repair man in the rear automobile helps the troubled one to catch up.

A handful of confetti scattered from the leading car at turns in the road keeps everybody on the right way. State policemen, in Staves having them, have been used to direct travel. The county agent has played traffic cop at sharp and unexpected turns.

Bear in mind that the group in the rear car may be as interested in what is to be seen and heard as those in the first car. Know the number of cars and wait till all have arrived before the show begins, otherwise late comers engaged in community gossip will disturb others by their low-toned conversations.

Manage the crowd, don't expect it to manage itself. Crowds like to be sympathetically managed. Tell people where you would have them stand or where you would have them walk to see or hear what is to be seen or heard. Remember that the voice out-of-doors does not have four walls to catch it. Be sure those farthest from you can hear what you say. Do not ask if they can hear you, but put a question to some man farthest from you, and test whether they can hear or not.

Use no charts or pictures that can not be read or understood 25 or 30 feet away. Make them loud and noisy. Good extension charts as well as good extension talks are characterized by what is left out as much as by what is put in.

Test the time it takes to run the route. Plan the program in accordance with slow running time. People reach a fatigue limit; resting does not always come by sitting in the automobiles going from place to place. Plan, if possible, for alternate sittings and standings. Quit on time regardless of the beginning.

Hunger and thirst assert themselves. Plan for physical comfort and the mind will give attention. Do not expect a tired, hungry, or thirsty man to listen to you. He may look, but he will not see. Economize time and save embarrassment by telephoning to the person who furnishes the meals how many will eat. Arrange for all to eat at once, if possible, and save time. Never think that because people's faces are turned toward you and their eyes set upon you that they are seeing or hearing. That is sometimes a position which is taken as much to be respectful as to give attention.

Never think that one disbelieves you because you are asked a question that may not indicate harmony with your ideas. Answer sympathetically. Keep no chip on the shoulder. Get an occasional question from the group if some one has to be tipped off to ask it.

The tour has followed you; do you propose to follow up the tour?



The Farmers' Tour in New York State.

By M. F. Barras, Extension Plant Pathologist, New York.

In this State farmers' tours have been for several years a popular and impressive means of conducting extension work during the summer. There have been tours continuing several days and covering special agricultural interests over rather extensive territory, as well as local tours conducted for a few hours only. Some have been general in their scope, including in their interest several agricultural crops and some livestock, and others have been confined in their interest to one crop or one kind of livestock, or to one special feature in their production, as for instance, control of disease. We have held farm-management tours, potato tours, fruit tours, poultry tours, and others. As a result of this experience we have developed a few principles in conducting tours that, if observed, aid greatly in making the tour a success.

The tour should be specialized in its interest. If the purpose of the tour is educational, much more will be gained by seeing a few things that show up well than by dissipating the interest over many things. It is true that this tends to limit the attendance, but it obviates the loss of time and interest of those attending, which comes from observing crops or methods in which they are not interested.

At every step in the tour there should be something to see which tends to emphasize the lesson. For instance, in an orchard tour, where proper spraying is being taught, it is necessary to show at the various stops how fungicides have controlled diseases, what applications have given the best results, what materials have proved most effective, and how important thoroughness is in control. Unsprayed trees or blocks of trees are necessary if this is to be done.

It is advisable for the leader to go over the proposed route a few days in advance of the main tour in order to select proper stopping places, unless the county agent, who usually arranges all tours, is familiar enough with the points to be brought out to do this himself. It is quite important that the leader know what is to be seen at each stop if he is to emphasize the points to be brought home.

In order that a tour may be successfully conducted, it must be very carefully planned, its purpose clearly defined, the schedule worked out and stops decided upon, instructors and speakers informed of the schedule, and ample publicity given to it. The county agent and specialist ordinarily make these plans with the help of the extension



office. It is important that the schedule be exactly followed, for if other stops than those decided upon are made, unless they are added at the end of the schedule, the whole subsequent progress is delayed.

It is necessary that one person, usually the county agent, be the leader of the tour and that all cars be conspicuously marked. The schedule should be arranged so that speeding is not necessary. The best tours are not long ones. Riding on a tour is tiresome and takes up time. At each stop some one should explain what there is to be seen; often the grower or local committeeman does this best. A printed or mimeographed program giving the schedule is helpful. No long talks should be given at any stop except at luncheon time, when they may be permitted if not too long. The place to stop for luncheon should be selected with care, and with the thought that the comfort and needs of the crowd must be provided for.

When the number of persons attending a tour is large, it is impossible for one instructor to present the essential points to all. In such cases two or more instructors should be provided, each to handle a relatively small group. This insures that each person will have an opportunity to learn the lesson to be presented at each stop. General conclusions can be presented by one person at the luncheon or the final stop.

There is no question of the value of the tour as a means of extension teaching. It is usually more attractive to growers than a field meeting. This means that the specialist can present his work to a larger gathering than are usually present at field meetings. It also gives him a wider range of samples upon which to draw to illustrate his points. But tours must be carefully planned and be timely if they are to be successful.

---

#### Comments on the Tour.

By W. G. Stover, Extension Plant Pathologist, Ohio.

The farmers' tours so far have not been organized from this office, although I have taken part in them. For example, in some counties the extension agent organizes an orchard tour. Stops are made at various orchards, and either the owner or the extension specialist who may be conducting a project at that place points out and explains the points of particular interest in this orchard. At noon a lunch is served in one of the orchards and after lunch remarks are made by one or more speakers calling attention to the outstanding things seen on the trip, and perhaps giving a summary of the situation.



I believe the farmers' tour to be a good thing. It is especially valuable where a number of extension projects in plant pathology are being conducted in the same county, and on the same or similar crops. Under such circumstances, general arrangements should be made by the county agent or by a committee appointed by him. The extension specialist should explain the purpose of the work and present the facts which form the basis of the particular demonstration undertaken. It may be open to question whether one should discuss the demonstration and its results; or whether the cooperators should be asked to explain what was done and what results were obtained. I think the decision of this point should depend on local conditions.

---

#### The Potato Tour as Conducted in Kansas.

By E. A. Stokdyk, Extension Plant Pathologist, Kansas.

The tour is planned about six months ahead of time, arrangement being made to have demonstrations at each stop we visit. Each county agent is responsible for the management of the tour in his county. The extension specialist obtains from the agent the names of places to be visited, and together they draft a program for that county. This being done, the tour is advertised and promoted by the extension specialist and the county agent.

When the plot is visited the agent introduces the cooperator to the members of the party. Sometimes the cooperator explains what has taken place. This is desirable, and wherever it is possible for the cooperator to tell the story himself, we try to have him do so. In many cases the plots tell their own story without further explanation from anyone.

If the cooperator is not willing to explain the demonstration, the agent or the extension specialist does this for him. In seed-treatment plots a number of plants in each plot are pulled and examined. This field study is really the interesting part to most farmers.

The strain and source of seed-test plots are examined in a similar way. We aim to have each person on the tour witness the examination. Discussion always takes place, and usually in the discussion the agent and the extension specialist take a considerable part.

It is our plan to have something definite to see at each stop. I have attended tours where we have gone through a farmer's orchards or potato field and merely commented on what a nice place it was, and so on. I think this is a waste of time. The success of the Kaw Valley potato tour was due to the fact that we saw a demonstrated practice at each stop.



### The Tour in South Carolina.

By W. D. Moore, Extension Plant Pathologist,  
South Carolina.

Farmers' tours in South Carolina are seldom, if ever, organized for showing only one phase of extension work. This condition is probably due to the novelty of the scheme, and it is likely that they will soon become more specialized.

Our tours are organized to interest men doing certain types of farming, such as potato growers or peach growers. The tours are advertised extensively through the State and county papers, as well as by the agents and specialists. The party always includes business men who are interested in agriculture, newspaper men, farmers, county agents, and specialists in all lines. A centralized point is selected for starting, and the party then proceeds to the points of interest that have been previously selected for visiting. The local county agent is the leader in his county for the party. Upon arriving at a given orchard or field each phase of work is discussed by the specialists. In this way the party receives instruction in many phases of the work which might not otherwise be mentioned. In many cases individual farmers are called upon to tell of their practices in disease control and other lines of work. This makes the farmer an instructor and helps materially in bringing out certain points of interest.

Upon returning from a tour our newspaper men give complete reports of the trip to the various papers. Specialists discuss their respective lines of work in special articles for our Weekly News Notes. In this way both specialized and generalized news are given out for the benefit of those who were not able to be in the party.

---

### The Tour in Indiana.

By C. T. Gregory, Extension Plant Pathologist, Indiana.

The farmers' tours that we have had have been held with greenhouse men and with potato growers. This year we also had a State meeting of the vegetable growers' association at Terre Haute, during which we made a tour of a number of gardens about Terre Haute. We plan to make a potato tour to three of our potato-spraying demonstrations in the northern part of the State some time in October.



I believe that this type of extension work is most effective because it permits me to point out the different diseases and to give instructions concerning their control at a time when the growers can appreciate the dangers of the diseases. The greenhouse tour that I held at Evansville was, I believe, largely instrumental in establishing the work that I have been doing with these gardeners. It gives the men chances to see examples of various troubles and often brings to mind some condition that they have had in their greenhouses. Furthermore, it usually results in bringing to mind serious losses from certain troubles that might not otherwise have been known, thereby increasing the effectiveness of the recommendations that we may make concerning control.

The organization of the tour is most important. I usually try to go to the place ahead of time, so that we may visit farms or greenhouses which show particular troubles. The county agent, of course, has charge of the tour, but at each place where there is a demonstration, I like to have the farmer tell what he did. I always make it a point to explain the nature of the trouble and why it is causing the losses.

---

Teaching Plant Pathology by Means of the Automobile Tour.

By W. S. Krout, Extension Plant Pathologist, Pennsylvania.

Many years of carefully conducted extension work in plant-disease control in Pennsylvania have shown that the demonstration is much superior to other methods in selling the work to the grower. Likewise, it has been found that visiting the demonstrations on an automobile tour, planned at a time when the results are most striking and the growers are least busy, is one of the greatest aids in bringing the work to the attention of a large number of growers, who otherwise would not have seen it and benefited thereby. In addition to the instruction and outing that the tour affords the farmer and his family, it allows growers to see and discuss among themselves the practical application of the demonstration on their own farms. In this discussion it is very common to hear one grower say to another, "John, this can be done on our own farms." A remark of this nature from an influential farmer carries a great deal of weight, and aids greatly in putting the work across.

Our tours are well advertised - especially in a county where such a trip is a new feature of the disease program. Most of the advertising is done by the county agent and the farm bureau through the use of county papers, announcements at community meetings, personal invitations, and posters (see page 73). Each stop must have something



of interest to the grower. We try to make the grower feel that he is getting something out of every minute he spends on the trip. By so doing a great deal of enthusiasm is developed and the work goes across in good shape. It is needless to state that the degree of success of the first tour determines largely the attendance on future tours.

The county is usually the unit of the tour. Frequently, however, county or State associations join the tour, in which case it is arranged to include a much larger territory. Various conditions of soil and climate may make it advisable to hold tri-county tours in certain parts of the State.

The attendance at our tours varies between 50 and 1,500. The day is usually planned so that there will be from three to five well-arranged stops. Copies of the program of the tour stating time and place of each stop and briefly, but concisely, what is to be seen, are distributed among those interested. Also, the complete program is usually published in the county daily two or three days immediately preceding the tour.

The plant pathologist and the county agent are in charge of the crowd while visiting the demonstrations. It is a part of their duty to answer and explain all inquiries that may arise in connection with the disease work, and to keep the crowd moving with some definite object in view. This is the ideal time for the plant pathologist to create enthusiasm among the growers for his work. Demonstrations of proper methods used to spray fruit trees and potatoes, and to mix the proper spray materials, can often be profitably given at stops.

At noon the tour stops for lunch, which is generally a basket lunch served in a grove or on the lawn of a farmhouse. Frequently, a grower furnishes additional provisions for the crowd, such as baked potatoes, fruit, hot coffee, lemonade, or ice cream. After lunch a round-table discussion on plant diseases is led by the plant pathologist. All questions and discussions that were not completed while at the demonstrations are now disposed of. After the noon hour the trip is continued until finished.

The preceding papers, dealing with the purpose and management of tours, have all been of a somewhat general nature. We now pass to a few reports on this phase of the work as conducted during the present season.- F. C. M.

## SECTION 2.

### REPORTS ON TOURS HELD RECENTLY.

In the discussions which appear in Section 1 much has been said about the part which should be played by the county agent; consequently, the following paper should be of particular interest. The tour in Blair county was a part of the program which is being directed by E. L. Nixon and W. S. Krout for improvement of plant-disease control in the State. The writer was present and can vouch for the fact that this field trip was a great success.- F. C. M.

#### Blair County, Pa., Tour.

By James F. Keim, Acting County Agent, Blair County, Pa.

The agricultural extension association of Blair County believed that if the most good was to be realized from the various demonstrations that were being conducted, a county-wide tour of inspection should be planned, which would make it possible for the farmers who made the trip to see the results attained.

The main object in holding this tour was educational. The extension service in Blair County strives to emphasize the educational side of the work at all times, and the tour was planned in order to drive home the facts that were demonstrated at the farms visited.

To accomplish this purpose, those extension specialists from the Pennsylvania State College who had assisted the county agent in putting on the demonstrations were present. At the various stops, assisted by the county agent, they pointed out the results attained and explained to the farmers just how they might get the same results for themselves.

After all plans had been made, the stops arranged for, and assurance received from the specialists that they would be present on the date set, the next step was to give the tour county-wide publicity.



To get the idea of a tour before the farmers, three agencies of publicity were used, newspapers, personal letters, and posters.

All of these were used at the same time during the week preceding the tour. It was thought that if the publicity work was done too far ahead there would be too great a chance that the farmers would forget all about it by the time the day arrived.

There are two newspapers which cover the county pretty thoroughly, and the cooperation of both was obtained by the county agent. A clipping file of the items published pertaining to the tour discloses the various steps that were taken (see p. 73). Although the main part of the publicity concerning the tour came out during the week preceding the event, it was first announced through the newspapers about 10 days before the date set. Clipping 1 (p. 73) gives some idea of how this was done.

After the tour had been announced the plan for publicity was as follows: A series of articles was prepared, consisting of "write-ups" of each stop that was to be made on the tour. Clippings 2 and 3 (p. 73) were printed in the two county newspapers and described the first stop that was to be made on the tour and the type of work to be seen.

As five stops were to be made, newspaper articles were prepared giving the subject to be discussed at each stop in the order that they were to occur. Some idea of the work to be seen at these different points was also given. This is shown by clippings 2 and 9 (p. 73).

In every story the date of the tour was given as well as the probable time that the tour would arrive at the stop described. Another feature of these stories, as can be seen on looking them over, is the names of the extension specialists who would be present.

Due to the splendid cooperation that we received from the newspapers, this plan worked very well, and examination of the dates on various newspaper articles shows that printed material on the subject was issued up to and on the day of the tour. We were also careful to give the papers an account of the tour for publication after it had taken place.

Publicity by means of personal letters consisted in sending to the various farmers who were on our mailing list letters giving the route and the subjects to be discussed. Letters were also sent to the members of the township advisory committees and to the members of the executive committee of the extension association.

The poster method of publicity was carried out by having arrows printed, which were placed along the route, and which gave the date and indicated the various stops that were to be made. These were put up a few days preceding the event, and were intended to give the tour publicity as well as call attention to the route to be followed.

The results obtained from the above plan for publicity were well worth while. I feel satisfied that as a result many more farmers attended than would otherwise have done so. Then, again, there is considerable educational value in the work. People begin to see more clearly the need of spraying their orchards if one emphasizes the matter in the local papers. The same is true of potato culture and alfalfa growing.

The tour itself went off very smoothly. Five stops were made, and at every stop the work done was pointed out and there were talks by extension specialists, by farmers, and by the county agent. At the fourth stop we arrived right on time, which shows that the schedule was followed closely.

This was my first tour, and I think that there were many things that could be improved on next time. As a result of this experiment, three things were impressed on my mind:

First. Don't plan to make too many stops.

Second. Make your preparations thoroughly so that you know just what is coming next.

Third. Keep up the interest at stops by having a number of short talks and more or less of a round-table discussion.

A tour, to be a success, must be well planned and requires no little time and effort, but it is an effective way of driving home the points that are brought out by demonstrations conducted in the field.



# MAKING ARRANGEMENTS FOR TOUR OF

On Aug. 5 the Blair County Farm Bureau will conduct a tour of the county, with stops at different places where the farm projects are being carried out. The tour will be held in the morning and the afternoon. The tour will be held in the morning and the afternoon. The tour will be held in the morning and the afternoon.

## INTERESTING TOUR BY FARM BUREAU

Leighty Farm Near Newry  
Will Be Visited By  
Farmers

## COWEN FARM TO BE VISITED ON TOUR

County Agent Announces  
Inspection On Trip  
August 5

## FARM BUREAU'S TOUR TOMORROW

Last Stop Will be Made At  
Orchard At M. D.  
Patterson Farm

## COUNTY TOUR TO BE MADE TODAY

Arrangements Complete  
For Blair County Farm  
Bureau Event

County Agent Keim announced yesterday evening that all arrangements for the county automobile tour, which is to be held tomorrow, had been made for the county automobile tour. The tour will be held in the morning and the afternoon. The tour will be held in the morning and the afternoon.

the tour will be held in the morning and the afternoon.

extension specialists at State College.

At the first stop, a tour of Mr. Leighty's farm near Newry, Mr. Krout will make a spray for the next Farm Agent James F. Keim, which was released last Tuesday morning. Mr. Keim is a year more experienced with the high quality of the seed stock.

The production of alfalfa, especially in the Morrisons Cove section of Blair county, has been taken up very extensively this year and numerous farmers seeded a field this spring.

## ALFALFA GROWING IS EMPHASIZED ON TOUR

The production of alfalfa, especially in the Morrisons Cove section of Blair county, has been taken up very extensively this year and numerous farmers seeded a field this spring.

## COUNTY TOUR TO BE HELD AUG. 5

## COUNTY TOUR IS WELL ATTENDED

Twenty-Five to Forty  
Farmers At Various  
Stops of Trip

The county tour, conducted yesterday by the Blair County Farm Bureau, was very well attended despite the inclement weather. The demonstration given by State College specialists were well received by the farmers who made the trip.

The first stop was made at the Leighty Brothers farm near Newry. There the crowd inspected an old orchard which was sprayed under the direction of the farm bureau and the trees were seen to be laden with fruit. A spraying demonstration was put on by W. S. Krout, of State College, who explained just how the spraying should be done, while County Agent Keim used the sprayer.

Mr. Leighty's raspberry and potato

## POTATO GROWERS WILL 3 TOUR COUNTY TUESDAY

County Agent James F. Keim, who has been planned for Tuesday morning, will leave the courthouse in Hollidaysburg at 10 o'clock.

## COUNTY TOUR PARTY 6 TO SEE SPRAY WORK

Twelve or fifteen years ago, Marion D. Patterson, district attorney for Blair county, planted a young orchard on his farm near Williamsburg on the Clover Creek road. Realizing that this orchard would soon come into bearing and knowing that it was impossible to produce clean fruit without spraying, Mr. Patterson purchased a mechanical sprayer about a year ago.

Last year this sprayer was used on the potato vines with marked success, a fine crop being harvested. This year Mr. Patterson decided to have the young orchard as well. The farm bureau cooperated with him in the time. A taken over and remark

## METZKER'S FARM TO BE VISITED

County Agent Announces  
Another Stop On  
County Tour

County Agent Keim announced yesterday evening that, in addition to the county tour, Tuesday, August 5, will be a stop at the farm of Metzker, near Martinsburg. The alfalfa successfully. The will include an inspection of the alfalfa crop.

Schmitz, of State College, who has been in the district for some time, will probably visit the farm about a week, during the time he will be in the district.

Publicity given Blair County Tour by Altoona papers.





### The Minnesota Potato Tour.

By R. C. Rose, Extension Plant Pathologist, Minnesota.

We have just finished our third annual potato tour, which started at Hollandale in Freeborn County on August 5 and ended at Meadowlands in St. Louis County on August 9. Field meetings were held in seven potato-growing counties of the State.

Hollandale is located in the center of a large peat area, 9 miles north of Albert Lea. Five years ago 20,000 acres of this land were under water and unfit for agriculture. Since 1919 the land has been drained and settled by Hollanders, as the name indicates, and today this region is producing some of the finest truck crops in the State. The Hollandale district has about 500 acres of potatoes, of which 485 are being inspected for certification. The leading varieties in this community are Irish Cobblers, Bliss Triumphs, and Russet Burbanks. Every grower maintains a seed plot which is thoroughly rogued, and every field is carefully sprayed from two to four times with Bordeaux mixture. There are about 18 high-pressure sprayers in the locality, each one owned by a group of two or more farmers.

At several stops the visitors had an opportunity to study the relative vigor of northern Minnesota seed as compared to local-grown seed. Where the fields were planted at the same time, the plants from the local peat-grown seed were just as large and vigorous as the northern stock. All the seed potatoes used at Hollandale were treated with corrosive sublimate, and practically little or no evidence of Rhizoctonia or scab was noted. Field visits were made at seven farms where informal discussions were held on methods of disease and insect control and handling of seed stock. One of the things that impressed the Hollandale visitors was that all the fields were as free from disease, insects, and weeds as it was possible to keep them. This part of the tour gave the visitors a chance to see the results of good agricultural practice rather than to study types of disease and insects.

The last four days of the tour were spent in the territory between St. Paul and Duluth, where both good and average fields were visited. On this part of the trip the members of the tour had an excellent opportunity to see the results of seed-plot methods, seed treatment, and high-pressure spraying as contrasted with the older methods. An evening meeting was held at the theater at Princeton, Minn., where the films, "How and Why of Spuds" and "Hidden Foes in Seed Potatoes" were shown. A second evening meeting was held at Pine City, where talks were given by specialists on disease and insect control and seed certification.

Plans for the State potato tour are generally started at planting time, after the county agent has made his plans for the coming year. The tour committee, consisting of the chief of the State





office of seed certification, assistant county agent leader, and extension plant pathologist, draw up a preliminary tour schedule including such counties as offer the best opportunities for extension work. The plan is then taken up with the county agents concerned and local communities of potato growers. The time for entering and leaving each county is decided on, and then all local arrangements are left in the hands of the local agent and his committee. The county agent determines what farms will be visited and is held responsible for local publicity, and the local committee provides automobile transportation for visitors who are not driving their own cars. Posters and newspapers publicity are sent out from the State extension office. The poster contains a portion of a State map, with line of tour indicated, the points visited each day, and points where the tour stops over night. (page 76.)

In past years only private cars were used on the tour, but this year four chartered automobile busses were used to transport some of the visitors from Hennepin and Ramsey Counties to Hollandale and return.

We have found that the use of cardboard signs helps materially in explaining what we wish to call attention to in the various fields. We generally state on the sign the owner's name, varieties grown, method of treating, spraying, and such other information as might be of interest. When the crowd arrives at a field it is divided into small groups in which different problems are discussed informally by the specialists. Many farmers will ask questions in small groups, but if the crowd is too large they will be inclined to visit and not pay attention. The extension entomologist will have one group, the extension plant pathologist another, and the certification inspector a third group. The visitors are at liberty to join any group and enter into the discussion.

It is hard to measure the results of a tour of this kind, but if every one attending it learns to recognize at least one new disease or insect pest and measures for its control, it is well worth while. Furthermore, it is easier for a farmer to recognize a disease or insect after having it pointed out than it would be by just reading about it in a bulletin. At one of the tour stops this year, a potato grower became very much interested in the mosaic disease that was pointed out to him. He asked one of the extension men to look at his field of Green Mountain potatoes just across the line. After counting 30 per cent mosaic in his own field, this farmer followed the tour to another field that was practically free of mosaic and ordered his seed for next year. His parting statement to the specialist was that he felt he had been repaid many times for his time spent on the tour. Nothing will convince a man of the value of an agricultural practice more quickly than a field demonstration where actual results can be seen under actual farm conditions.





# THIRD ANNUAL MINNESOTA POTATO TOUR AUGUST 5-9, 1924

EXTENSION SERVICE, DEPARTMENT OF AGRICULTURE UNIVERSITY OF MINNESOTA, AND POTATO SEED CERTIFICATION  
DEPARTMENT MINNESOTA DEPARTMENT OF AGRICULTURE

A chance for an intensive study of the  
Minnesota Potato Industry  
under a great variety of conditions

Minnesota's standard varieties--Seed plots--Potato breeding experiments--Disease  
and insect control--The use of fertilizers--Growing of certified seed--Farm  
storage--Potatoes on peat soils and on high lands

FIELD INSPECTIONS

DEMONSTRATIONS

CONFERENCES



## WHAT YOU WILL SEE

### August 5th

Five hundred acres of Irish Cobblers and Bliss Triumphs on reclaimed muck land, 10 miles north of Albert Lea at Hollendale

### August 6th

Potato breeding plots and disease and insect control at University Farm, St. Paul-- Fertilizer and variety tests on peat lands at Coon Creek-- Water level tests at Purgatory Springs

### August 7th

Bliss Triumphs grown for seed certification on peat, near Princeton--Potato machinery in the making at North Branch

### August 8th

Potato fields and operations in the extensive potato areas of Pine and Carlton counties

### August 9th

Certified seed strain tests of Irish Cobblers, Rural New Yorkers, and Burbank Russets at the Northeast Experiment Station, Duluth--Certified Green Mountain potatoes at Meadowlands

## RAILWAY AND BUS SERVICE

All of the points to be visited can be reached by railroad or bus, but auto transportation will be furnished for visitors by local committees at various points

For further information, Address R. C. Rose, Chairman, Potato Tour Committee, University Farm, St. Paul, Minn





Potato Tour, Worcester County, Md.,

June 20, 1924.

By R. A. Jehle, Extension Plant Pathologist, Maryland.

This tour was a continuation of the potato tour conducted in Accomac County, Va., by the Virginia Truck Experiment Station on June 19. It was conducted jointly by the county agent of Worcester County, the Worcester County Farm Bureau, the extension pathologist, and the department of soils of the University of Maryland. About 150 farmers attended the tour.

Experiments with the use of various fertilizers on potatoes were shown on two farms and explained by members of the department of soils.

On three farms demonstrations showing the value of the use of certified seed, the loss resulting from planting seed from potatoes affected with mosaic, and the value of seed treatment were shown. Plots grown with seed from the following sources were shown: Maine certified; Maine uncertified; fall home-grown from Maine certified; Prince Edward Island certified; fall home-grown from Prince Edward Island certified; Western Maryland certified; fall home-grown from Western Maryland certified; South Dakota certified; Virginia mountain-grown certified; New Jersey fall-grown certified; home-grown certified; and seed from plants affected with mosaic.

The value of the use of certified seed was distinctly shown in these plots. The percentage of mosaic in the Maine uncertified seed was large, the stand was poorer, and the plants were more uneven than those in the plots grown from certified seed. The plots from home-grown seed were just as free from disease as those from Northern and mountain-grown seed, but the plants were in an earlier stage of development, although planted at the same time, showing evidences of maturing at a later time. All the plants in the plot from seed affected with mosaic were more or less diseased, and many of them were severely dwarfed, with indications of a very poor yield. The value of seed treatment was shown by the fact that all the plots were free from Rhizoctonia, although a great many plants affected with Rhizoctonia were found in adjoining fields from untreated seed.

The tour was planned by the county agent and the extension pathologist as a continuation of the tour of the Virginia Truck Experiment Station, and it is planned to make it an annual event. Upon request from the county agent and extension specialist, the Worcester County Farm Bureau and the department of soils agreed to co-operate. The tour was led by the county agent, E. I. Oswald; the fertilizer experiments were explained by Dr. A. G. McCall and Mr. Smith of the department of soils; and the demonstration plots and disease work

were explained by the writer. The tour was advertised in the local papers and at the meetings of the farm bureau locals by the county agent and the writer.

It is too soon after the tour to determine accurately what part it has played in making disease control effective in the State, and since it is only a part of our potato-disease control program, it is difficult to ascertain just what portion of our results are due to the tour. However, it is felt by all parties concerned that the tour was very valuable. The potato growers had an opportunity to observe what a difference there could be under the same conditions from the use of seed from various sources. They had an opportunity to see what kind of yield they might expect from seed from plants affected with mosaic, illustrating the value of certification. They also had an opportunity to observe the control of Rhizoctonia by seed treatment.

The interest of growers in the use of good seed, in seed treatment, and in spraying is constantly increasing, and it is believed that much of this increased interest is due to the potato tour. We hope to continue and increase this interest by making the annual tour a permanent part of our potato-disease control program.

The writer also attended a tour of the orchards in Washington County, conducted jointly by the Maryland Horticultural Society, the American Pomological Society, and the county agent on July 28, 29 and 30. The attendance on this tour was about 150, and the writer had an opportunity to discuss fruit-disease problems with a large number of fruit growers.



The Third Kaw Valley Potato Tour,  
June 2 - 6, 1924.

By E. A. Stokdyk, Extension Pathologist, Kansas.

(From a mimeographed report.)

The third Kaw Valley potato tour was attended by 411 growers, covering the six leading potato-growing counties, Wyandotte, Johnson, Leavenworth, Douglas, Jefferson, and Shawnee.

The purpose of the tour was to bring to the attention of growers the results on the demonstration and experimental plots as well as to study the progress of the crop and its enemies.

In Wyandotte County, seed treatment, certified seed, spindle tuber, and soil-fertility plots were examined. The seed-treatment plots showed on the average 80 per cent of diseased plants in the untreated plots, 20 per cent disease in the plots treated with corrosive sublimate, and 10 per cent disease in the plots treated with hot formaldehyde. Some exceptions were noted, but in no case had the treatment failed to give some control. \* \* \* Most of the fields were treated with hot formaldehyde, although a few strips were treated with corrosive sublimate as a test. Luther Kindred had one of the best pieces of Chios in the valley. He stated that he would not show the party his untreated seed for it had a poor stand, and also stated that he would not plant another potato without treatment. The certified seed plots that were witnessed in the county showed in some cases greater vigor of vines, earlier maturity, and larger potatoes than the commercial seed, while in some cases there was no apparent difference. A few fields were examined that had fine tops that had not been treated, but they showed the tubers rotting at the stolons with the *Rhizoctonia* disease. In general the untreated fields showed a poor stand and poor prospects for a crop. As a whole, the crop in Wyandotte county looks very promising at this time.

In Johnson County it was apparent that the best stands and the best potatoes were in the treated fields. Treated seed again showed from 10 to 20 per cent infection with *Rhizoctonia*, while untreated plots showed from 70 to 100 per cent infection. Most of the treated fields had been treated with hot formaldehyde. \* \* \* Johnson County has signed up for Federal shipping-point inspection service, and as a whole will have some good-quality potatoes to put on the market. They expect to begin moving some of the crop about June 25.

In Leavenworth County seed-treatment plots were visited at several farms. On the average the treated seed showed as before about 80 per cent infection. In the vicinity of Lenape only a part of one



field was treated, and it was apparent to all those on the tour that the stand around Lenape was the poorest witnessed on the trip. For some unknown reason the growers there have been slow to take up the treatment. Sweet-clover plots showed up to advantage, the vine vigor being better and the soil in better shape than where sweet clover as a green-manure crop had not been used. The fields of Omar Browning at Linwood were in good condition. One field containing plots that had received applications of sheep manure showed that the sheep manure gave a stimulus to the vines.

In Douglas County several comparative tests between the hot-formaldehyde and corrosive-sublimate treatments were witnessed. The hot-formaldehyde plots showed almost perfect control of Rhizoctonia, while the corrosive-sublimate plots showed 80 per cent control, and the untreated plots were from 80 to 100 per cent infected. \* \* \* Certified seed plots did not show greater vine vigor on this farm, but did show the tubers further developed. On the farm of A. J. Parnell seed from various States was seen. Apparently little or no difference could be seen between the various lots of certified seed, but there was a wide difference between the certified seed and the commercial seed. A total of 120 people attended the tour in Douglas County, and at one time there were 34 cars in a string following the route. At noon a picnic dinner was served on the farm of William Stiner, after which several announcements were made and short talks were given by Jess Haney and Prof. Albert Dickens. \* \* \*

In Jefferson County various plots were examined, and as a whole the treated seed showed a better stand and better potatoes than the untreated seed. One exception was found on the farm of William Gordon at Perry. His treated seed showed practically no advantage over the untreated. He thinks that he must have slipped up somehow, but cannot locate his trouble. The certified plots on the farm of Bell and Son showed a better set and larger tubers in the certified seed than in the commercial seed. On the farm of G. Plummer there was no apparent difference between certified and commercial seed. Seed-treatment plots on the farm of Mr. Plummer showed 20 per cent infection in the treated seed and 80 per cent infection in the untreated. On the farm of Fred Michael and Howard Good various lengths of treatment with hot formaldehyde were examined as compared with corrosive sublimate. The 90-minute corrosive-sublimate and the 4-minute hot-formaldehyde treatments showed the cleanest stalks and the best set of potatoes, although the 2-minute hot-formaldehyde treatment gave fairly good control. A short meeting was held before dinner, and the subject of inspection of potatoes was taken up. The growers signed a petition for inspection and guaranteed 104 cars for inspection, if the service was available. This makes the fifth county that has signed and leaves Leavenworth the only county that has not applied to date. \* \* \*



EXTENSION LITERATURE.

Since our last issue the following literature has reached this office from the States:

Florida:

Rhoads, Arthur S., Ripe-rot of grapes and the copper acetates as non-staining sprays to control.  
Univ. of Fla. Press Bul. 361; 2 p. June, 1924.

Jenkins, E.W. and Kelley, R.T., Strawberry production in Florida. Univ. of Fla. Ext. Bul. 40; 16 p. illus.  
June 1924.

Kansas:

Stokdyk, E. A., Fire blight. Kan. St. Agr. Col. Leaflet  
X-Form No. 220; 2 p. June, 1924.

Massachusetts:

Department of Botany, How to prevent onion smut. Mass.  
Agri. Col. Ext. Leaflet 79; 2 p. illus. March, 1924.

Pennsylvania:

McCubbin, W.A., Peach yellows and little peach. Pa. Dept.  
Agri. Gen. Bul. 382; 16 p. illus. March, 1924.

Guyton, T.L. and Knull, J.N., Round-headed apple-tree borer.  
Pa. Dept. of Agri. Gen. Bul. 386; 7 p. illus. April,  
1924.

Hadley, C.H., Japanese beetle in Pennsylvania. Pa. Dept. of  
Agri. Gen. Bul. 390; 19 p. illus. June, 1924.

Guyton, T.L. and Stear, J.R., PDB (Paradichlorobenzene) and  
other controls for peach-tree borer. Pa. Dept. of  
Agri. Gen. Bul. 383; 70 p. illus. March, 1924.

Virginia:

Godkins, James, Loose Smut of wheat and its control. Va.  
Agri. Col. Ext. Bul. 210; 6 p. illus. July, 1923.

Wingard, S.A. and Godkins, J., Tobacco diseases in Virginia and their control. Va. Agri. Col. Ext. Bul. 90; 31 p. illus. April, 1924.

Zimmerley, H.H., Davis, R.J. and Spencer, H. Spraying and dusting cantaloupes. Va. Truck Exp. Sta. Bul. 45; 18 p. illus. October, 1923.

Washington:

Zundel, G.L., Spraying - from broom to aeroplane. Western Fruit Vol. VI. No. 7, p. 8, 24.

Zundel, G.L. and Duling, W., Early-seeding method as practiced in the inland empire for elimination of smut and prevention of soil erosion. Northwestern Mutual Fire Association; 4 p. illus.